

DIELECTRIC MATERIALS

ABSTRACT OF THE INVENTION

5

An article of manufacture comprises a substrate and a layer of $N_{(x)}Y_{(1-x)}AlO_3$ on the substrate where x is a molar fraction greater than zero and less than one, and N is an element selected from La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu. The article may be an electronic device further comprising an electrode electrically
10 isolated from the substrate by the layer. In particular, the dielectric properties of the layer are such that the layer is especially although by no means exclusively useful for electrically isolating gate electrodes in field effect transistor devices. The layer may be formed on the substrate via molecular beam epitaxy.